

Title (en)  
DEVELOPMENT OF THERMOPLASTIC COMPOSITES USING WET USE CHOPPED STRAND (WUCS)

Title (de)  
ENTWICKLUNG VON THERMOPLASTISCHEN VERBUNDWERKSTOFFEN UNTER VERWENDUNG VON GESCHNITTENEN GLASFASERN ZUR FEUCHTEN VERWENDUNG (WUCS)

Title (fr)  
PRODUCTION DE COMPOSITES THERMOPLASTIQUES A PARTIR DE FIBRES COUPEES PAR VOIE HUMIDE

Publication  
**EP 1675892 B1 20100120 (EN)**

Application  
**EP 04795057 A 20041014**

Priority  
• US 2004033839 W 20041014  
• US 68801303 A 20031017

Abstract (en)  
[origin: US7138023B2] A process for forming thermoplastic composites that uses wet use chopped strand glass is provided. Wet reinforcement fibers such as wet chopped strand glass fibers are opened by passing the fibers consecutively through a first opener, a condenser, and, optionally, a second opener. The opened reinforcement fibers are mixed with a resin and transferred to a first sheet former. The resin is preferably polypropylene fibers. An optional second sheet former may be used to form a final composite having high structural integrity. The resulting sheet may be optionally passed through a needle felting machine for mechanical strengthening. The sheet is then passed through a thermal bonder to thermally bond the reinforcement glass fibers and resin. The composite product that exits the thermal bonder can be subsequently used as a reinforcement in a molding process to produce composite articles.

IPC 8 full level  
**C08J 5/08** (2006.01); **D04H 1/42** (2006.01); **D04H 1/48** (2006.01); **D04H 1/72** (2006.01); **D21H 13/38** (2006.01)

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**WO 2005037897 A1 20050428**; AT E455815 T1 20100215; BR PI0415263 A 20061212; CA 2540304 A1 20050428; CN 100540594 C 20090916; CN 1867618 A 20061122; DE 602004025263 D1 20100311; EP 1675892 A1 20060705; EP 1675892 B1 20100120; JP 2007508964 A 20070412; JP 4818925 B2 20111116; MX PA06004153 A 20060628; US 2005082721 A1 20050421; US 7138023 B2 20061121

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